

Claim Amendments

Claim 1 (currently amended): A safe auto-locking belay override mechanism for an auto-locking belay device comprising use with an auto-locking belay device of the variety containing a locking surface which rotates on an axle to pinch a rope against a fixed surface, thereby preventing further movement of said rope, in an event in which sufficient force is exerted on said auto-locking belay device by said rope; said safe auto-locking belay override mechanism comprising an override means with a pressure sensitive activation means; said override means, when activated, causing said locking surface to be blocked against rotation on said axle thereby preventing the locking of said rope against further movement ~~the normal intended function of said auto-locking belay device to be overridden thereby allowing a rope to pass quickly through said auto-locking belay device without said auto-locking belay device causing said rope to become locked against further movement;~~ said pressure sensitive activation means causing said override means to become activated only by one of three different pressure levels; low or no pressure exerted on said pressure sensitive activation means preventing the activation of said override means, thereby allowing said ~~auto-locking belay device to perform its normal intended function~~ locking surface to rotate on said axle in order to pinch said rope against said fixed surface, thereby preventing said further movement of said rope, in said event in which said sufficient force is exerted on said auto-locking belay device by said rope; intermediate pressure exerted on said pressure sensitive activation means causing said override means to be activated; relatively higher pressure exerted on said pressure sensitive activation means preventing said activation of said override means.

Claim 2 (canceled)

Claim 3 (currently amended): The mechanism of claim 2 1 wherein said ~~means to block said rotation of said cam~~ override means comprises an arm fixedly attached to said axle, said axle being attached to said ~~cam~~ locking surface, pressure on said arm preventing

movement of said arm, thereby preventing rotation of said axle, thereby preventing rotation of said ~~cam~~ locking surface.

Claim 4 (currently amended): The mechanism of claim 3 wherein said pressure sensitive activation means comprises a force isolation plate pivotally mounted on said axle at a point on the opposite side of said arm relative to said ~~cam~~ locking surface; said force isolation plate being able to rotate around said axle independent from any rotation of said axle; a hinge mounted on said force isolation plate supporting a lever; said lever being pivotally mounted on said hinge; said hinge acting as a fulcrum for said lever; a lower portion of said lever, below said hinge, being biased by a spring such that in a resting mode an upper portion of said lever, above said hinge, extends over said arm and through the path of rotation of said arm; said pressure sensitive activation means responding differently to each of three pressure levels exerted on said lower portion of said lever as follows:

- a) low or no pressure ~~allowing~~ causing said lever to slip free from a belayer's ~~hands~~ hand in an said event in which ~~the fall of a climber causes rope forces on an auto-locking belay device to be sufficient so as to cause said cam to rotate~~ sufficient force is exerted on said auto-locking belay device by said rope so as to cause said locking surface to begin to rotate along with said axle; rotation of said ~~cam~~ axle causing said arm to rotate, rotation of said arm causing said arm to contact said upper portion of said lever thereby causing rotation of said lever along with said force isolation plate, rotation of said lever causing said lever to slip free from said belayer's ~~hands~~ hand thus allowing said ~~cam~~ locking surface to continue to rotate and lock said rope;
- b) intermediate pressure being insufficient to further compress said spring but being sufficient to prevent said lever from slipping free from said belayer's ~~hands~~ hand in said event in which ~~the fall of a climber causes rope forces on an auto-locking belay device to be sufficient so as to cause said cam to rotate~~ sufficient force is exerted on said auto-locking belay device by said rope so as to cause said locking surface to begin to rotate along with said axle; rotation of said ~~cam~~ axle causing said arm to rotate until said arm

contacts said upper portion of said lever; said lever blocking further rotation of said arm, thereby blocking further rotation of said axle, thereby blocking further rotation of said locking surface;

c) high pressure being sufficient to further compress said spring thus causing said lever to rotate with respect to said hinge, thus causing said upper portion of said lever to move out of said path of rotation of said arm, thus allowing said arm to rotate unimpeded, thus allowing said ~~cam~~ axle to rotate unimpeded in said event in which ~~the fall of a climber causes rope forces on an auto-locking belay device to be sufficient so as to cause said cam to rotate~~ sufficient force is exerted on said auto-locking belay device by said rope so as to cause said locking surface to begin to rotate along with said axle, thus allowing said locking surface to continue to rotate and lock said rope.

Claim 5 (currently amended): The mechanism of claim 3 wherein said locking surface comprises a portion of a surface of a cam and said pressure sensitive activation means comprises a disengagable attachment means for said axle and said cam, a spring, and said arm; said disengagable attachment means comprising a key affixed to said axle and a key slot within a side of said cam; said key able to fit within said key slot; said disengagable attachment means being engaged when said key is within said key slot thus causing said axle to rotate with said cam whenever said cam rotates; said disengagable attachment means being disengaged when said key is not within said key slot thus allowing said cam to rotate around said axle independent from any rotation of said axle; said spring positioned and partially compressed between a surface of said auto-locking belay device and said arm; a force exerted by said spring thus causing said disengagable attachment means to be engaged when no external pressure is exerted on said arm; said pressure sensitive activation means responding differently to each of three pressure levels exerted on said arm as follows:

a) low or no pressure allowing said disengagable attachment means to remain engaged, thus ensuring that said cam and said axle rotate together, thus ensuring that rotation of said cam causes said arm to rotate; said low or no pressure being insufficient to restrain

said arm in an said event in which ~~the fall of a climber causes rope forces on said auto-locking belay device to be sufficient so as to cause said cam to rotate~~ sufficient force is exerted on said auto-locking belay device by said rope so as to cause said locking surface to begin to rotate along with said axle; said arm thus slipping free from said belayer's ~~hands~~ hand, said cam with said locking surface thus continuing to rotate and lock said rope;

b) intermediate pressure being insufficient to further compress said spring but being sufficient to prevent rotation of said arm in an event in which ~~the fall of a climber causes rope forces on said auto-locking belay device to be sufficient such that said cam would rotate~~ sufficient force would be exerted on said auto-locking belay device by said rope so as to cause said cam with said locking surface to rotate along with said axle were it ~~said cam with said locking surface~~ not restrained from doing so by said intermediate pressure on said arm; said disengagable attachment means remaining engaged being that said intermediate pressure is not sufficient to further compress said spring;

c) high pressure being sufficient to further compress said spring thus causing said disengagable attachment means to become disengaged, thus allowing said cam to rotate independent from said axle thus allowing said cam with said locking surface to continue to rotate and lock said rope in said event in which sufficient force is exerted on said auto-locking belay device by said rope so as to cause said locking surface to begin to rotate along with said axle.